This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) In a packet network communication system comprising a correspondent node periodically communicating with a mobile network node, the correspondent node having sent one or more packets ~~non-optimally~~ to the mobile network node causing the correspondent node to receive binding information including at least: a first entry indicating an association between the mobile network node and a mobile network; and a second entry indicating a proxy address associated with the mobile network, a method comprising the correspondent node performing steps of:

storing the at least a first and second ~~entry~~ entries, thereby defining a binding cache ~~having at least a first and second entry;~~

upon the correspondent node next attempting to send packets to the mobile network node, consulting the binding cache to determine, based on the first entry, that the packets should be directed to the mobile network and, based on the second entry, that the mobile network is reachable by the proxy address, wherein the first entry maps an address of the mobile network node to a mobile network prefix and wherein the second entry maps the mobile network prefix to a care of address.

2. (currently amended) The method of claim 1, wherein the first entry maps a home address of the mobile network node to a home address of a mobile router associated with the mobile network; the second entry maps ~~a~~ the mobile network prefix including the home address of the mobile router to a care of address.

3. (original) The method of claim 1, wherein the first entry maps a home address of the mobile network node to a home address of a mobile router associated with the mobile network; the second entry maps the home address of the mobile router to a care of address.

4. (original) The method of claim 1, wherein the mobile network node comprises a mobile router.

5. (original) The method of claim 1, wherein the mobile network node comprises an IP-addressable device other than a mobile router.

6. (original) The method of claim 1, wherein the mobile network node detaches from the mobile network and moves to a visited network, the mobile network node thereby becoming an independent mobile node and the correspondent node receiving updated binding information indicating an association between the mobile node and the visited network, the correspondent node further performing steps of:

replacing the first entry with the updated binding information, thereby defining an updated first entry; and

upon the correspondent node next attempting to send packets to the mobile node, consulting the binding cache to determine, based on the updated first entry, that the packets should be directed to the visited network.

7. (original) The method of claim 6, wherein the updated first entry maps a home address of the mobile node to a care of address associated with the visited network.

8. (original) The method of claim 1, wherein the mobile network node detaches from the mobile network and moves to a second mobile network, the correspondent node receiving updated binding information indicating an association between the mobile node and the second mobile network, the correspondent node further performing steps of:

replacing the first entry with the updated binding information, thereby defining an updated first entry; and

upon the correspondent node next attempting to send packets to the mobile network node, consulting the binding cache to determine, based on the updated first entry, that the packets should be directed to the second mobile network.

9. (original) The method of claim 8, wherein the updated first entry maps a home address of the mobile node to a home address of a mobile router associated with the second mobile network.

10. (currently amended) The method of claim 8, further comprising the correspondent node performing steps of:

sending one or more packets ~~non-optimally~~ to the second mobile network, causing the correspondent node to receive binding information indicating a proxy address associated with the second mobile network;

storing the binding information in the binding cache, thereby defining a third entry;

upon the correspondent node next attempting to send packets to the mobile network node, consulting the binding cache to determine, based on the updated first entry, that the packets should be directed to the second mobile network and, based on the third entry, that the second mobile network is reachable by the proxy address.

11. (original) In a packet network communication system comprising a correspondent node having received a first address identifier from a mobile network node and a second address identifier from a mobile router attached to the mobile network node, a method comprising the correspondent node, upon sending packets to the mobile network node, performing steps of:

forming a routing header including the first address identifier and a home address of the mobile network node; and

appending the routing header to a packet header comprising a source address field and destination address field, the source address field including a home address of the correspondent node; the destination address field including the second address identifier.

12. (original) The method of claim 11, wherein the mobile router is operably connected to a second mobile router, the correspondent node receiving a third address identifier from the second mobile router, the method comprising the correspondent node, upon sending further packets to the mobile network node, performing steps of:

forming a routing header including the second address identifier, the first address identifier and a home address of the mobile network node; and

appending the routing header to a packet header comprising a source address field and destination address field, the source address field including a home address of the correspondent node; the destination address field including the third address identifier.

13. (original) The method of claim 11, wherein the first address identifier comprises a home address of the mobile router indicating the mobile network node's attachment to the mobile router, and the second address identifier comprises a care of address for reaching the mobile router.

14. (currently amended) A host device comprising:

a network interface operably connecting the host device to a mobile network node detachably connected to a mobile network;

a binding cache operable to store binding information, the binding information including, responsive to the host device having sent one or more packets non-optimally to the mobile network node, at least: a first entry indicating an association between the mobile network node and the mobile network; and a second entry indicating a proxy address associated with the mobile network; and

a processor operable to consult the binding cache to determine, based on the first entry, that the packets should be directed to the mobile network and, based on the second entry, that the mobile network is reachable by the proxy address,

wherein the first entry maps an address of the mobile network node to a mobile network prefix and wherein the second entry maps the mobile network prefix to a care of address.

15. (original) The host device of claim 14 further comprising a packet generation element operable to form a routing header including the first entry and a home address of the mobile network node; and append the routing header to a packet header comprising a source address field and destination address field, the source address field including a home address of the correspondent node; the destination address field including the second entry.

16. (original) In a communication system supporting mobile IP, wherein a mobile node is operable to connect to a network infrastructure via one or more gateway routers, a method comprising the mobile node performing steps of:

determining that it is attached to a mobile gateway router associated with a mobile network;

determining a home address of the mobile gateway router;

obtaining a care of address comprising the home address of the mobile gateway router;

sending the care-of address to a home agent of the mobile node; and

maintaining a binding update list of one or more correspondent nodes that the mobile node has been communicating with.

17. (original) The method of claim 16, wherein the mobile network is a home network of the mobile node.

18. (original) The method of claim 16, wherein the mobile network is a foreign network of the mobile node.

19. (original) The method of claim 16, wherein the mobile node comprises a mobile router.

20. (original) The method of claim 16, wherein the mobile node comprises a mobile network node detached from a mobile network.

21. (original) In a communication system supporting mobile IP, wherein a mobile node is operable to connect to a mobile router, a method comprising the mobile router performing steps of:

informing the mobile node that it is attached to a mobile router;

informing the mobile node of the home address of the mobile router; and

instructing the mobile node to use the home address of the mobile router as a care of address.

22. (original) The method of claim 21, wherein the mobile node comprises a mobile router.

23. (original) The method of claim 21, wherein the mobile node comprises a mobile network node detached from a mobile network.